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THE JUNIOR HIGH SCHOOL

A REPORT PREPARED BY A COMMITTEE OF THE EDUCATIONAL COUNCIL OF THE IOWA STATE TEACHERS' ASSOCIATION

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The Junior High School

A Report Prepared by
a Committee of the Educational Council
of the Iowa State Teachers'
Association

November, 1917

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FOREWORD

The committee in charge of the preparation of this report have not attempted to make it exhaustive. They have selected a few of the more important phases of the junior high school movement and have endeavored to set these forth clearly and briefly.

At the first and only meeting of the committee as a whole it was decided to treat the subject under the following nine heads:

I. Definition.
II. Evolution.
III. Advantages and Disadvantages.
IV. Organization and Administration.
V. Curriculum.
VI. Qualifications of Teachers.
VII. Cost.
VIII. The Junior High School in Iowa.
IX. Bibliography.

These divisions of the subject were assigned to the members of the committee as follows:

I. Mr. Smart.
II. Prof. Lewis.
III. Mr. Foster and Miss Horner.
IV. Mr. Smith, Mr. Ilsley, and Miss Dilley.
V. Prof. Lewis and Mr. Cougill.
VI. Mr. Wilson.
VII. Mr. Fayram.
VIII. Mr. Humphrey.
IX. Mr. Smart.

Though a rough outline of the subject was gone over in the whole committee in order that each member might learn the meets and bounds of his allotment in a general way and thereby avoid trespassing, yet some overlapping was inevitable where so many were working without further conference. No effort has been made toward harmonizing any difference of opinions that may appear. Each member is responsible for his own part and the opinions voiced therein. It is hoped that the report will assist in the solution of a problem that is rapidly becoming an important one in Iowa school administration.

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I. DEFINITION

The junior high school is yet to a large extent in the experimental stage. For this reason no really satisfactory definition has been or can at this time be formulated. Several attempts at defining it have been made but they have been statements of what the school should accomplish rather than definitions. All these attempts reflect the formulator's personal opinion and experiences rather than a consensus of opinion. However, all who have attempted definitions are fairly well in accord on certain general characteristics as the quotations herein following will show.

Briggs, in the Report of the United States Commissioner of Education, 1914, Vol. I, page 137, defines the junior high school as "an organization of grades seven and eight or seven to nine to provide by various means for individual differences, especially by an earlier introduction of prevocational work and of subjects usually taught in the high school."

Stetson in the Kentucky High School Quarterly, July, 1915, page 17, says the junior high school is a "definite constructive attempt to make the school serve the community by bridging the gap between the grammar grades and the high school by offering some form of prevocational work to those who can never attend high school and through its ability to give them more vital and wider interests."

According to Wiles in a monograph entitled The Junior High School, Heath & Co., 1916, "a junior high school is a school made up of the upper grades (usually the seventh and eighth) of the elementary school and the lowest grade (the ninth) of the secondary school, and organized after the general plan of the secondary school as regards curriculum, nature, and method of the recitation, instruction, and supervision."

Horn in writing of the junior high school in Houston, Texas, in The Elementary School Journal, October, 1915, page 92, declares "the junior high school is not an elementary school. Neither is it a high school. Neither is it a sort of a mixture of the two in equal proportions. If it is in reality an institution worthy of its place in our educational economy, it is an institution which is

neither an elementary school nor a high school, but a provision for the needs of those children for which neither of the older institutions made suitable provision. It partakes to some extent of the nature of each, but it is essentially different from either."

Johnston in Educational Administration and Supervision, September, 1916, page 147, gives the following:

"Defining the junior high school in the narrow but more nearly correct sense as a special institution, we should say that, in intent it is that portion or department of the public school system above the sixth elementary grade, including the seventh and eighth, and usually the ninth also, which is organized under a distinctive internal management with a special principal and teaching staff, or under a six-year secondary school department divided into a junior and a senior high school of three years each, with one general management. Such a school in these first three years, provides for departmental teaching, partially differentiated curriculums, for prevocational instruction and for systems of educational advice and guidance and for supervised study. No definition which merely says it is an institution which shifts the seventh and eighth grade boys from elementary school to high school properly represents the ideal of this school."

Again in an editorial in the same journal for April, 1917, page 241, he says: "Junior high schools have some or all of the following characteristics: special buildings, libraries, assembly halls, study halls, auditoriums, gymnasiums, laboratories, print-shops, music rooms, etc.; liberal entrance requirements based on physiological and psychological ages and upon sociological considerations; vocational and character guidance and advice; supervised study; longer school day; partial and well-designed curriculum differentiation on two bases (psychological and vocational); pupil groups divided with reference to their different curriculum requirements; clearly and continuously correlated courses; the center of a Three-Cycle Plan with its breathing, readjustment, and finishing places; preindustrial and prevocational training; promotion by courses; partial and progressive departmental teaching; more individualized work; 'general courses' in science and mathematics; modern languages taught by the natural method and be-

gun in the seventh grade; seventh grade start, corresponding more nearly to pubescent development in pupils; lengthening of the school day, school week, and school year; differentiated (from elementary school) social center function; special text-books; special administration; college or normal graduates for teachers; higher salaries for teachers; new 'units;' new class periods; and a liberal range of electives."

If we were asked to name seven things that will characterize the junior high school of the future the list would be about as follows:

1. It will include grades seven, eight, and nine.
2. It will have modified (?) departmental teaching.
3. It will have supervised study.
4. Promotion will be by subject.
5. It will offer differentiated courses.
6. It will not be housed with the grades below.
7. It will fuse perfectly into the grades below and the senior high school above.

II. EVOLUTION OF THE JUNIOR HIGH SCHOOL

This section of the report is devoted to a discussion of the following points: Beginnings of the six-year high school idea; the Boston Latin-grammar school, 1635, a six-year secondary school; the Academy in 1743, a six-year secondary school; Boston junior high school, 1821; the idea of six-year secondary schools in foreign countries; lack of distinction between elementary and secondary education in America; recent progress in establishing six-year high school courses; report of standing committee of the National Education Association on six-year courses; growth of departmental teaching and differentiated courses; high school subjects in the seventh and eighth grades; prevocational education and the junior high school; number of junior high schools, 1914; probable number of junior high schools, September, 1917.

I. BEGINNINGS OF THE SIX-YEAR HIGH SCHOOL IDEA

The movement for the establishment of junior or intermediate high schools as a part of a six-year program of secondary education is a development in connection with approximately 300 of the 12,000 high schools in the United States. The origin of the movement cannot be exactly stated. Junior high schools are created to do different things, according to the whim, educational philosophy, or interests of the superintendent and other leaders of the community. As a growing institution, with few traditions, the lines of its development are vaguely defined. It does not stand for much that is new in education, but rather borrows ideas from the high school, from the prevocational school, the departmental grammar school, the elementary industrial school, and the original secondary schools of this country.

The typical American elementary school of today consists of eight grades and carries the average pupil from the age of six or seven to the age of fourteen. The four-year high school succeeds the elementary school and builds on it. Too frequently it is assumed that this conventional type of organization was designed years ago at the beginning of the school system for a great educational purpose. The history of American education, on the contrary, clearly shows that the eight-four plan is a somewhat

accidental development of the latter part of the nineteenth century, and that the idea of a six-year high school is as old as secondary education itself.

2. THE LATIN-GRAMMAR SCHOOL WAS A SIX-YEAR SCHOOL

The early Latin-grammar schools of New England were, for the most part, six-year schools, maintaining preparatory classes in which attention was given to the needs of children between the ages of ten or eleven and fourteen. Brown points out that the boys' Latin school course must have been, altogether, about *six* or *seven* years in length. Frequently, grammar school masters objected to teaching children their A, B, C's. They wanted the children prepared before they came to the Latin-grammar schools. For this purpose, sometimes a special teacher was attached to the Latin-grammar school. The Latin-grammar school of colonial days was in fact a six-year secondary school preparing for college.

3. THE ACADEMY A SIX-YEAR SCHOOL

In 1743 Benjamin Franklin sketched a plan for the establishment of an English academy. Franklin would gladly have made this an English school, pure and simple. But he yielded to men of wealth and learning, whose co-operation was needed, and included in the course of study ancient and foreign language. Among other things Franklin proposed a course of study in English for a school of *six* classes. One of his recommendations was that pupils should have learned to read and write before entering this school. This was to be the only requirement for admission, providing the child was ten years of age or over. In the lowest class, children were to study the rules of English grammar, orthography, and short pieces of classical literature. When the meaning had been mastered, attention should be devoted to oral reading. In the third class, special attention was also to be given to rhetoric and the practice of speaking. In the establishment of Andover Academy in 1778, the donor, Samuel Phillips, proposed to lay the foundation of a public free school or academy. This school, according to Brown, admitted children at the age of nine or ten, and did not usually graduate them in less than five or six years.

4. BOSTON HIGH SCHOOL, 1821, A JUNIOR SCHOOL

The first high school in America was designed to admit children at the age of twelve and to keep them for three years. This school was originally intended for boys not expecting to go to college. It was felt that a special school was needed to provide approximately three years of training beyond that given in the elementary schools, and to maintain a practical curriculum to fit the child for active life at the age of fifteen or sixteen. The early Boston high school was vocational in intent. It was founded as a protest against the narrow classical curriculum of the Latin-grammar school and the academy. A quotation from the report giving the reasons for the establishment of this school shows this very clearly. The report reads:

"A parent who wishes to give his child an education that will fit him for active life, whether mercantile or mechanical, is under the necessity of giving him a different education from any which our public schools can now furnish."

In recommending the establishment of this school the Boston school committee unconsciously but very definitely outlined some of the chief characteristics of a present day junior high school. The recommendations read as if written yesterday by a proponent of the new school. The Boston school committee recommended:

"That the term of time for pursuing the course of studies proposed (for the new high school) be three years.

"That the school be divided into three classes, and one year be assigned to the studies in each class.

"That the age of admission be not less than twelve years.

"That it be required of every candidate, to qualify him for admission, that he be well acquainted with reading, writing, English grammar in all its branches, and arithmetic as far as simple proportion.

"That it be required of the masters and ushers, as a necessary qualification, that they shall have been regularly educated at the university."

It is evident from this that the junior high school of today resembles the first American high school in several particulars.

The Boston high school was built upon a six or seven-year elementary school and admitted children about twelve years of age. It had a three-year course suited to the needs of children going out into life and not intending to enter college. Navigation, surveying, and mensuration in the Boston high school have been replaced in the junior high school by manual training, agriculture, home economics, and the commercial branches. It required college-bred teachers. The work in mathematics was practical; arithmetic, algebra, geometry, trigonometry, surveying, and practical mensuration being taught in the same course. On the other hand, the first high school was unlike some of our junior high schools in as much as no foreign and ancient language was attempted and no effort was made to prepare pupils for the Latin-grammar school or for college.

These few instances are sufficient to show that the first secondary schools in this country, the Latin-grammar school and the academy, were primarily six-year secondary schools admitting children from ten to twelve years of age and graduating them from sixteen to eighteen, and that the first high school was an intermediate school similar in intent and design to the junior high school of today.

5. IDEA OF SIX-YEAR SECONDARY SCHOOL IN FOREIGN COUNTRIES

The idea of a six-year secondary school is also found in foreign countries. The German youth begins his secondary education at the age of nine or ten; the French youth at the age of ten or eleven. The typical secondary school of Germany has nine classes, although there are many communities not able to support more than six years of secondary school work. The typical secondary school of France has seven classes. The German and French secondary schools continue to follow the plan adopted over two centuries ago, of a six to nine-year course used in this country in the Latin-grammar schools and academies from the earliest times down to the middle of the nineteenth century. Having started on the longer period for secondary education, Germany and France never abandoned it. This is just the reverse of what happened in America. We gradually abandoned the six-year plan during

the nineteenth century for the present eight-four plan. It is evident from this that the current agitation for a six-year high school, with a junior and senior division, does not imitate European models but rather attempts to restore the organization that originally prevailed in secondary education in this country.

6. LACK OF DISTINCTION BETWEEN ELEMENTARY AND SECONDARY EDUCATION

The fact is that in America until recently no sharp distinction has ever been successfully maintained between elementary and secondary education. Like Topsy, our school system just "growed." From the beginning until well past the middle of the nineteenth century, elementary schools were everywhere ungraded. The primary school consisted of six classes under the direction of one teacher. Gradually, school officials recognized an advantage in the plan of roughly classifying the pupils, and of placing the younger ones under a particular teacher well suited for that work, while the older ones were assigned to others. With that adoption of this plan, pupils were promoted from one teacher's room to another's. Upon the completion of the work of the last class of the primary school, pupils were permitted to enter upon their work in the grammar school. The work in the grammar school frequently covered much of the work that is included in the seventh, eighth, and ninth grades of the present school system. Upon the completion of the work in the grammar school, pupils were thought to be prepared for their life's work or for entrance into the secondary school. Gradually, the plan of full yearly grading was adopted, with separate rooms and teachers for the work of each year. In the southern states the prevailing plan became a seven-year elementary school, followed by a three or four-year high school. In the north, central, and western states, the eight-four plan was universally adopted. In New England states nine grades were included in the elementary school, preceeding the four years of high school work. As late as 1872 the United States Commissioner of Education, John Eaton, wrote: "The line of demarcation between elementary and secondary and between secondary and superior is not very distinct if drawn at

all." In 1876 he said: "Not only are these general divisions of elementary, secondary, and superior far from definition, but the program of studies in each are without exact definition."

7. RECENT PROGRESS IN ESTABLISHING SIX-YEAR HIGH SCHOOL COURSES

In 1899 the Committee of Thirteen proposed a six-year high school course. In the same year the Committee on College Entrance Requirements of the National Education Association discussed and approved a resolution favoring a "unified six-year high school course beginning with the seventh grade." The committee said, in part:

"The most necessary and far-reaching reforms in secondary education must begin in the seventh and eighth grades. Educators agree that these grades must be enriched by eliminating non-essentials and adding new subjects formerly taught only in the high school. In our opinion these problems can be solved most quickly and surely by making the seventh and eighth grades part of the high school, under immediate direction of the high school principal. The seventh grade, rather than the ninth, is the natural turning point in the pupil's life. The transition from the elementary to the secondary period may be made natural and easy by changing gradually from the one-teacher regime to the system of special teachers, thus avoiding the violent shock now commonly felt on entering the high school."

About 1896 the city of Providence, Rhode Island, established a six-year course for pupils in the elementary school who had completed the sixth grade and who showed tendencies toward strong scholarship. Such pupils were allowed to enter a six-year course in the high school building completing their grammar school studies and commencing certain high school studies. Similar six-year courses were organized during the next decade in Boston and Worcester, Massachusetts; Newark, New Jersey; Baltimore, Maryland; Richmond, Indiana; Nashville, Tennessee; Kalamazoo, Saginaw, and Grand Rapids, Michigan.

8. REPORT OF STANDING COMMITTEE ON SIX-YEAR COURSES

The transition point in the development of six-year courses came with the work of the Department of Secondary Education of the National Association in 1907, 1908, and 1909. This committee was appointed in 1905. After a three-year session devoted to a consideration of arguments for and against six-year high school courses the committee reported in 1909 that sentiment for the six-six division was growing and that in twenty-two cities in twelve states the experiment of six-year courses was being tried. It concluded its report with these statements:

"The experiment of six-year courses is being tried. The seventh and eighth years of school are now the battle-ground for improvement in courses of study. There is a conflict going on between the idea of advancing the individual child on the one hand and the stereotyped idea of mass promotion on the other. There is a general impression that the whole course of instruction, both elementary and secondary, should be simplified; that differentiation of pupils' work should begin at the end of the sixth grade; that time is now being wasted on non-essential and on impracticable topics and that there should be greater flexibility in the promotion of pupils, departmental teaching, promotion by subjects, organized faculties of teachers for these years, and greater attention to individual needs by differentiated and practical arts courses. The six-and-six plan moves in the direction of better pedagogy and better economics."

9. GROWTH OF DEPARTMENTAL TEACHING AND DIFFERENTIATED COURSES

In 1912 the United States Commissioner of Education reported that the movement for departmental teaching in the grammar grades was making considerable progress and that differentiated courses also were beginning to appear in the seventh and eighth grades. For example, in Bloomfield, New Jersey, two courses were offered: (1) a course preparatory to high school, which included the subjects of arithmetic and algebra, English and Latin, United States history, geography, physiology, penmanship, manual training or domestic art, and drawing; (2) a course pre-

paratory to a vocation, which included the subjects of arithmetic and business practice, English, United States history, geography, physiology, manual training, domestic art, and drawing. In Buffalo, New York, in two schools an elementary course of six years had been introduced with an opportunity to specialize after the sixth school year along three different lines, (1) regular, (2) industrial, (3) commercial. "This," the report adds, "is a step toward the six-and-six plan."

The same report stated that there were thirty-one cities in the United States that had adpoted the six-and-six plan or some modification of it.

10. HIGH SCHOOL SUBJECTS IN SEVENTH AND EIGHTH GRADES

In 1893 the Committee of Ten reported in favor of beginning the following studies below the high school: English literature, German or French, elementary algebra and concrete geometry, physical geography and natural science, biography and mythology, civil government and Greek and Roman history. Twenty years later, 1914, the United States Commissioner of Education reported that eighty-three cities were offering algebra or foreign language in one or two of the years preceding the high school, sixty-four offered algebra, twenty-one Latin, eighteen German, three French, and two Spanish. In some of these cities the upper grades had been segregated. Most of them had departmental teaching with or without segregation in the upper grades. The Commissioner reported that "in all of these cities only a few changes would be needed in organization or in curriculum to secure a number of the additional advantages claimed for the junior high school." However, the report failed to state just what these schools needed to do in order to be classed as junior high schools.

11. PREVOCATIONAL EDUCATION AND THE JUNIOR HIGH SCHOOL

In a number of cities, notably Boston, Seattle, and Louisville, some of the problems that the junior high school is created to solve have been partially solved by the establishment of what are known as prevocational schools or classes. The prevocational school is usually established to take care of over-aged and retarded

pupils, and students in the seventh, eighth, and ninth grades who have developed a chronic dislike for school life. The prevocational school is designed to give considerable attention to individual differences, and to train children in the practical arts. Such pupils are sometimes described as "anti-book." That is, they are "motor" minded rather than word minded. No critical psychological study has determined this grouping of children, nevertheless the common practice prevails of dividing the children who seem to be primarily interested in working with their hands from those primarily interested in working with their minds. This is a very unfortunate grouping. Again, the tendency in prevocational work is to ignore grading as far as possible. There are "classes" instead of grades. It is thought that prevocational training prolongs the school life of children and fits them somewhat better to meet the conditions of occupational life. It is recognized that many cannot go to high school, and that most of the children will enter upon a gainfull pursuit before seventeen or eighteen years of age. It is apparent from this description that the prevocational school resembles the junior high school in many particulars. Each is designed to give a large amount of practical work in preparation for immediate social efficiency as a citizen and a worker. Each gives, also, more or less attention to individual differences, and in theory, at least, provides for loose grading and rapid promotion. Although the term prevocational has been loosely used, and has been applied to widely different courses of study, there can be no doubt that the above is a fair description of its general qualities, and that prevocational schools and classes, and junior high schools, are working along parallel, if not similar lines. Each is a modified form of general education, designed to better prepare youths in that transitional stage in the upper years of the elementary and the first years of the high school.

12. NUMBER OF JUNIOR HIGH SCHOOLS IN 1914

In 1914 Briggs reported to the United States Commissioner of Education 193 cities claiming junior high schools, but the same report allowed the claim of only fifty-seven of the 193. In this report Briggs attempted to establish standards for the junior high

school. The following vague definition was arbitrarily applied to all school systems claiming such schools:

"The junior or intermediate high school is defined as an organization of grades seven and eight or eight and nine to provide by various means for individual differences, especially by an earlier introduction of prevocational work and on subjects usually taught in the high schools."

In applying this definition to the 193 cities claiming junior high schools, Briggs said:

"Many of the junior high schools, it must be said, are educational accidents. The pupils of the first year in the high school have been segregated with those from the seventh and eighth grades in order to relieve congestion in the high school building; in a large number of cases, a new high school building having been erected, the pupils of the upper grades, with or without those in the first year of the high school, are placed in the old building, which usually, besides being too good to be destroyed, is well adapted for such work."

A study of junior high schools in 1914 shows that the tendency in twenty-six of the eighty-three cities reported by Briggs was toward a three-year senior high school. Los Angeles, California; Grand Rapids and Jackson, Michigan; Crookston, Minnesota; Lincoln, Nebraska; Columbus, Ohio; Houston, Texas; Salt Lake City, Utah, and nineteen other cities had actually established junior high schools comprising grades seven, eight, and nine. The remaining cities had various combinations under trial, including the six-two-four plan, the six-three-five plan, the six-two-three plan, and the seven-three-two plan. In one city, Macon, Georgia, a combination of grades five, six, and seven, was called a junior high school. Many of the schools were in reality departmental grammar schools under the name of a reorganized high school. The school in Newark, New Jersey, was an elementary industrial or prevocational school. One hundred and fourteen of the 193 cities were excluded by Briggs because they did not satisfy the adopted definition. Most of these so-called reorganizations were purely administrative in character. The superintendent was confronted with a building problem and forced to re-group the grades.

In one city, for example, grades seven, eight, and nine were grouped in one building to relieve the pressure on other buildings, but the same course of study was maintained. That city did not have a junior high school if Briggs's standards are adopted. The junior high school is more than a re-grouping of grades. It is a pedagogical as well as an administrative device.

13. PROBABLE NUMBER OF JUNIOR HIGH SCHOOLS, SEPTEMBER, 1917

All of the foregoing data with respect to the number of junior high schools are undoubtedly inaccurate. The reports to the Commissioner were incomplete, and vague standards were used in making lists of junior high schools. This is true also of later reports by Douglass and Bingaman. Douglass in 1915 and Bingaman in 1916 sent requests to state superintendents and cities throughout the United States asking for information concerning junior high schools. Douglass received data from sixty-eight cities, and Bingaman grom 271 cities claiming junior high schools. Neither of these men defined a junior high school or gave standards for its measurement.

There are approximately 12,000 high schools in the United States. If the most liberal estimate of the number of junior high schools is accepted, say 300, it appears that less than two per cent of the high schools have attempted to reorganize their courses so as to co-ordinate them with courses in the elementary school. This is not a sweeping revolution when we recall the age of the movement and the remarkable array of expert educational theorists who have openly endorsed and advocated it. The junior high school movement is not, as Johnston asserts, "sweeping the country." Practice lags far behind theory in this as in so many other educational reforms.

III. ADVANTAGES AND DISADVANTAGES

Much discussion of the junior high school has taken place in the last few years. The arguments for this new plan of school organization have been more vigorously set forth than the arguments against; the promoters of the junior high school idea have not been backward in making claims for it. Among its proponents are the United States Commissioner of Education, many professors connected with departments and colleges of education, and a considerable number of superintendents of city school systems. On the other hand, only a few prominent men in the educational field have offered objections to the new plan.

The following statement of advantages and disadvantages is an attempt to summarize the arguments for and against by reducing them to fundamental considerations. Individual writers are not cited, because none has a monopoly on any argument presented. In several cases, particularly apt expressions have been quoted, and these identify the authors.

ADVANTAGES

1. DEPARTMENTAL TEACHING

The junior high school makes possible departmental teaching in the seventh and eighth grades, with teachers especially prepared for the various lines of work. This is a distinct advantage over the old plan of holding one teacher responsible for all of the subjects required in a grade.

2. PROMOTION BY SUBJECTS

Promotion by subjects, instead of by grades, is easily arranged under the junior high school organization. It is better to give a child credit for what he has already done and allow him to advance in subjects already mastered, rather than make him repeat those subjects because he has failed in other lines. With one teacher for a group of children, it is difficult to promote by subjects. If a child fails in geography or history, for example, he must repeat the work of the whole year or semester, which is manifestly a great waste of time. Rural school pupils entering a graded school

can often make a better adjustment if opportunity is given for taking some work in one grade and the remainder in another grade.

3. REORGANIZED CURRICULUM

Junior high schools provide a reorganized curriculum which eliminates useless material and offers practical subject matter in accordance with the principles of motivation. The ordinary seventh and eighth grade curriculum is an "historical accident," without physiological, pedagogical, or psychological justification. Moreover, the course of study for these grades is "vapid, wearisome, and futile;" the endless duplication of English, history, and science indicates a chaotic state. Little progress is made by pupils of the seventh and eighth grades in the common branches, and therefore the present system is wasteful.

4. BRIDGES THE GAP BETWEEN EIGHTH AND NINTH GRADES

The junior high school bridges the gap between the eighth grade and the high school, and by so doing keeps many children in school longer than they would otherwise attend. While still in the seventh or eighth grade, pupils become accustomed to high school ways of doing things and are prepared to approach the ninth grade without any hesitation.

5. EARLY DIFFERENTIATION ON THE VOCATIONAL BASIS

Early differentiation on the vocational basis is possible only under the junior high school plan. This point is urged most insistently. The thought in the minds of those who present this argument is that seventh grade children should be started on the line of work which they shall ultimately follow. It is maintained that the industrial needs of the nation demand such differentiation in the twelfth or thirteenth year of the child's life; at that time a beginning should be made in his preparation for some specific calling. The high school at present is a failure as a selective and eliminating agency along vocational lines. Every American child must be "exposed to both manual and mental activities and must experiment with both before anyone, including himself, can determine his natural aptitude." One of the most important func-

tions of the school is the distribution of population into vocations for which individuals are suited and prepared. The logical development of vocational work is possible only under the junior high school organization.

6. RECOGNITION OF INDIVIDUAL DIFFERENCES

The individual differences in children may be taken into account more effectively in the junior high school by individual instruction, supervised study, and vocational guidance. Opportunity is also given for other educational reforms.

7. RECOGNITION OF MENTAL AND PHYSICAL CHANGES

The mental and physical changes in children about twelve years of age demand a different kind of treatment from that given in the earlier years.

8. MORE TIME FOR COLLEGE PREPARATION

Four years is too short a time for preparation for college.

DISADVANTAGES

1. EARLY DIFFERENTIATION ON VOCATIONAL BASIS UNDEMOCRATIC

There is danger in crowding down the choice of life's work to the twelfth year of childhood. "The German system differentiates from the outset—not on the basis of psychological needs, but on the basis of social castes." It is evident that the American system should avoid the danger of stratified society and that social groups should be developed that can understand each other because they have a common basis of knowledge, ideals, and aspirations. In the first six years of school life there is not sufficient time for mastering the elements of race experience that should become the common property of all. It is necessary to devote a large part of the time in the first eight years of school life to this purpose. The arts of school life are insufficient, even though it be conceded that these arts or tools of knowledge may be mastered in the first six grades. There must be a "basis of common feeling, common thought, and common expression in an effective democracy." Differentiation on the vocational basis should be deferred at least until the ninth grade, and preferably until later.

2. EARLY DIFFERENTIATION ON VOCATIONAL BASIS AGAINST COMMON SENSE

It is absurd to suppose that seventh and eighth grade boys and girls are capable of choosing their life work; it is equally absurd to suppose that their teachers are capable of making the decision. Immaturity, ignorance, and lack of prophetic vision are against such procedure. It would be far better to leave the whole matter to chance than to attempt, at this early age, to determine the pupil's permanent occupation. Of a thousand boys twelve or thirteen years of age, how many can wisely decide upon a vocation? Of the teachers of the thousand boys, how many have the judgment and foresight to divide their pupils into groups of future plasterers, physicians, farmers, painters, barbers, and lawyers? Predestination, personified, might well pause before such a task.

3. DANGER IN SPECIALIZATION

Specialization in teaching is carried to an extreme under the junior high school plan. Each teacher, being a specialist, tends to exaggerate the importance of his subject. The various interests are not well balanced.

4. PUPILS FROM SMALLER SYSTEMS HANDICAPPED

A handicap will be placed upon pupils coming from smaller systems where the present arrangement is retained. For example, a pupil completing the eighth grade work in a rural school or a small village school will find himself practically two years behind the pupils in the six-year high school to which he goes.

5. PHYSIOLOGICAL CONSIDERATIONS

The age of fourteen—not twelve—is the beginning of adolescence. Moreover, it is easy to overwork the argument that treatment of pre-adolescence and adolescent boys and girls should be decidedly different. Transition from childhood, through youth, to manhood is a gradual process. Fantastic schemes are sometimes suggested on the basis of physiological differences. For example, it is urged by one theorist that tall pupils should be "rushed" in their studies, and "short, light ones" should be kept below grade, or in normal grade.

6. MORE EXPENSIVE

The expense of maintaining the junior high school is much greater than under the old plan, while the results are practically the same.

7. ELECTIVE SYSTEM QUESTIONABLE

Experience with the elective system in high school and college should make us hesitate to introduce it into the seventh and eighth grades. Children, ordinarily, do not elect subjects because of "natural aptitudes," "tastes," "capabilities," and the like, but for far different reasons.

8. THE GAP NOT ELIMINATED

The junior high school moves the gap between the eighth and ninth grades downward, so that it is between the sixth and seventh grades. It will be easier for the pupil of fourteen than the one of twelve to hurdle this gap.

The above summary is necessarily very brief, but, it is believed, fairly comprehensive. The following general observations are deemed worthy of consideration:

OBSERVATIONS

1. NOT ALL ALLEGED ADVANTAGES DEPENDENT UPON JUNIOR HIGH SCHOOL ORGANIZATION

One phase of this subject has apparently been overlooked in the discussion. Many of the benefits supposed to come from the junior high school plan are not necessarily dependent upon that form of organization. These advantages may be enjoyed by a school even though it is not formally organized according to the six-three-three or the six-two-four plan. For example, departmental teaching in seventh and eighth grades has been in operation in many cities in Iowa for several years. Likewise, promotion by subjects instead of by years, the reorganization of the curriculum for seventh and eighth grades and the elimination of useless material, and supervised study, are all possible and practicable even though there is no so-called junior high school. In Iowa it has been the common practice to segregate these grades as far as practicable and designate such schools as grammar

schools, or grammar departments, practicing in them the methods and reforms suggested.

The proponents of the new plan have claimed too much for it; they have assumed that many advantages could come only with this form of school administration. The starting of a junior high school may provide a welcome opportunity to initiate educational reforms but it is not essential to them.

2. JUNIOR HIGH SCHOOLS OFTEN ESTABLISHED BECAUSE OF INCREASED ENROLLMENT

Another phase of the question of advantages and disadvantages of junior high schools should be noted. The new type of administration has been initiated because of increase in school enrollment and consequent congestion and demand for additional room. With the great increase in high school enrollment, the capacity of high school buildings has been overtaxed; the same has been true with regard to grade buildings. What more natural than to plan an arrangement whereby some pupils could be taken from the high school and some from the grade buildings, thus relieving both extremes of the school system? In such cases a distinct advantage is that of providing more space and better physical conditions in general for teachers and pupils. Superintendents have often urged the establishing of junior high schools because thereby congestion would be relieved. The public, meanwhile, has been under the impression that it was receiving something brand new in educational administration.

3. STATISTICAL FINDINGS NOT EQUALLY APPLICABLE TO ALL SECTIONS

In all discussions of this kind, it should be kept in mind that many of the indictments brought against the schools do not apply to our own section in the same measure as they apply to other sections of the United States. Usually statistics that are presented are for the country taken as a whole, while educational conditions in some states are not at all the same as in other states. And, again, the statistics presented are usually several years old, and do not describe present conditions. It should also be kept in mind that events occurring simultaneously are not always casually

related. For example, the remarkable increase in high school enrollment in some localities may be due to the junior high school movement, but it is very plain that such is not the case in other localities.

4. THE ESSENTIAL POINT OF CONTENTION

The essential point of contention between the proponents and opponents of the junior high school seems to be whether sharp differentiation on vocational lines should begin as early as the seventh school year.

IV. ORGANIZATION AND ADMINISTRATION OF THE JUNIOR HIGH SCHOOL

I. CLASSIFICATION OF PUPILS AND GRADES INCLUDED

The grouping of grades in junior high schools varies with local conditions. The buildings frequently determine almost wholly the grades included. The general tendency, however, is to feel that the seventh grade should be the first year of the junior high school, corresponding roughly with the twelfth year of age in a child who has made normal progress through school.

The following table, taken from the Fifteenth Yearbook of the National Society for the Study of Education, shows the grade grouping found by Douglass in his investigation:

Grades	No. of Systems	Grades	No. of Systems
5—7	1	6— 6	10
5—8	1	8	3
6—7	1	9	1
6—8	11	8— 9	8
7—8	77	7—10	7
7—9	64		

Douglass suggests further that out of twenty-two junior high schools about to be organized sixteen will include grades 7—9.

The above table shows that the prevailing tendency is to favor grades seven and eight and grades seven to nine, inclusive. Of the schools recently organized a majority show a tendency to include the ninth grade in the organization. This practice has the support of a large number of psychologists who feel that the age of twelve marks the beginning of the period of transition in a normal child and fifteen marks its close. The prevalence of the 7—8 grouping among the schools indicates that the earlier junior high schools grew out of grammar schools and were housed in elementary school buildings rather than in buildings of a more highly specialized type.

A second point to be considered is that of buildings. The investigation made by the Massachusetts School Masters' Club showed that out of 150 places reporting junior high schools

seventy-seven had the organizations housed in buildings with other school work. Eighty-nine cities reported separate principals for their junior high schools. In sixty-one cities the junior high school principal had other supervisory duties.

Segregation of sexes in the junior high schools is practiced to some degree. Douglass found that twenty out of eighty-five reporting on this point had segregation of sexes in classes.

2. ENTRANCE REQUIREMENTS

The entrance requirements of junior high schools investigated seem to be rather uniform. The majority provide for the completion of the regular work in the sixth grade, while some require passing grades only in what they designate the essentials in arithmetic, history, and English. In some instances, however, age is the determining factor, while general ability, as judged by a teacher or principal, is another criterion. The investigations made on this point indicate that for the most part a satisfactory completion of the first six grades will constitute a compliance with the entrance requirements of the ordinary junior high school.

3. METHODS OF PROMOTION

It seems fairly well agreed that students in the junior high school should be advanced in accordance with the subjects covered, and this, in the opinion of Superintendent Spaulding, would allow pupils in the three years to specialize in the intermediate school and be prepared to carry it out in high school.

One of the advantages mentioned for organizing a junior high school at Hudson, Ohio, was that a pupil who failed in arithmetic would not be required to take all subjects again but would be passed and take only arithmetic again. Lewiston, Idaho, requires twenty-four credits for graduation, each credit representing a year's work; nine of the twenty-four must be in required subjects, as English, mathematics, and history, three may be in subsidiary work, as band, orchestra, glee club, chorus, dramatic club, gymnasium work, parliamentary law, etc.

Mt. Vernon, Indiana, reports that no electives are permitted in grade seven, with the exception of industrial work. If pupils

make an average grade of eighty-seven in 7-B they are allowed to elect other subjects than industrial work in 7-A, as all essentials in English, arithmetic, and history are covered when the pupil has reached 7-A. As soon as he has made eighty-seven for two succeeding semesters in either one or all the subjects indicated he is allowed to elect Latin, German, algebra, or industrial history in the succeeding half year, provided his parents wish it. If he does not make eighty-seven he is required to continue work in those subjects, the course of study being so organized that additional practical work is furnished for the pupil who fails to make the minimum grade. All regular eighth grade subjects are offered both in 8-B and 8-A for those failing to make the minimum grade which permits them to elect high school subjects. Courses in Latin, German, algebra, and industrial history are offered and full high school credit is given for regular high school subjects.

The Massachusetts High School Masters' Club found that only twenty-eight schools out of 150 investigated did not promote by subject. Sixty of these schools had annual promotions, while a greater number, eighty-six, provided for semi-annual promotions, thus reducing the unit to a half-year instead of a year subject.

4. DEPARTMENTAL INSTRUCTION

Whatever may be said for departmental instruction as used in the high school may be asserted with equal assurance when applied to the junior high school. Certain undesired results which were feared on account of the immaturity and inexperience of the pupils have not been forthcoming, particularly in schools where carefully planned student advisory systems have been in operation. Fully prepared teachers, specialists in their departments, recitation periods of ample length, supervised study hours, are as essential in the junior high school as in the grades beyond.

Departmental instruction frees the child from the routine of lower grade organization which at this age becomes tedious and uninteresting. It affords a new and inspiring type of recitation in which spontaneity of thought and study are encouraged, and develops the capacity to choose and act independently. The spirit of the class room, the assembly and the social life, with its increase

of self-directed activity is well adapted to inspire co-operation. This eliminates many of the disciplinary problems peculiar to these grades and has a tendency to prolong the school life of the over-age pupil.

With one exception the 150 junior high schools reporting to the Massachusetts High School Masters' Club had departmental teaching and that one reported departmental teaching "in part." It may be inferred from this that departmental teaching is an integral part of the junior high school movement.

5. THE STUDENT ADVISOR

The student advisory idea as applied to the junior high school contemplates the assignment to each teacher of a relatively small group of pupils for whose educational, social, and physical welfare she is directly responsible. The plan is designed to meet certain problems arising in this type of organization, with pupils of this age. The lack of close personal contact with pupils is one of the weakest points of the junior high school plan.

The pupil on entering the junior high school passes from an environment in which all of his activities are directed by one teacher into one in which he comes under the guidance of five or more each day. Each of these teachers is absorbed in the progress within her own department and may easily become oblivious to the demands made upon the pupils' time and strength by other teachers. Something more than so-called close supervision is necessary in order to make the child's school day a well ordered, logically arranged whole. The advisor, interposed between the pupil and his instructors, becomes familiar with the content and extent of the pupil's program and sees that it is properly arranged and well carried out. Weaknesses carried up from the grades are discovered, causes of failure are investigated and removed, and so far as it is possible there is secured a normal adjustment between the pupil and the educational forces operating in his life.

It is to be borne in mind also that the child of junior high school age has reached a critical stage in his mental and physical development. It is the age of diffidence, unattractiveness, reticence, sensitiveness, of misunderstandings, and heartaches.

In the mechanics of departmental instruction, after the home-like atmosphere of the grades, the child feels lost amid conditions of which he does not feel himself a part, and whose application to his own life he does not understand. It is the function of the student advisor to meet this condition. Possessing a mature understanding of adolescent life, filling a place midway between that of chum and of parent, she seeks to set up a cordial relation between the pupil and his surroundings, his teachers, and his associates.

The function of the student advisor is also exercised in the field of vocational guidance. The discovery of vocational tendencies and the provision of an opportunity to develop them seems to be the rational means of keeping children of this age interested in school work. The student advisor has gained a thorough knowledge of the child's natural aptitudes, his home influences, and his hereditary tendencies. She is thus able to encourage the first suggestions of a trend toward a life work, and to assist in crystalizing the school life about this as a motive. The student advisor thus touches every phase of the child's life and becomes a vital factor in shaping his educational career.

6. SUPERVISED STUDY

The closeness with which pupils are supervised during study hours varies through the three years of the junior high school. The essential thing is that when the pupil passes into high school he shall have become self-reliant and consistent in his methods of attacking and mastering a lesson. These two or three years of training in the proper habits of reading and study constitute one of the most practical phases of junior high school work.

The following table taken from Douglass shows the prevailing practice in junior high schools covering length of period also:

Use of Supervised Study and Division of Class Periods in One Hundred and Forty-nine Schools

Period, minutes	20	25	30	35	40	42	45	48	50	55	60	Not Given	Totl.
Number of schools	1	1	26	4	64	2	18	1	9	1	19	3	149
Supervised study	1	..	8	2	23	2	10	1	9	1	19	3	81
No supervised study	..	..	4	1	5	..	1	..	..	..	..	..	11
Not answering	..	1	14	1	36	..	7	..	..	..	..	..	58

Of 143 school systems reporting to the Massachusetts High School Masters' Club 107 reported supervised study, sixteen "partial," one "some," and nineteen no supervised study.

7. RECOGNITION OF INDIVIDUAL DIFFERENCES

Briggs has defined the junior high school as "an organization of grades seven and eight or seven to nine to provide various means for individual differences, especially by an earlier introduction of prevocational work and of subjects usually taught in the high school." If a definition that has attracted as much attention as the above is based upon the recognition of individual differences it is the province of this report to note especially the means used to further that end.

Promotion by subject is perhaps the oldest. Of 150 cities reporting to the Massachusetts High School Masters' Club twenty-eight reported that they did not promote by subject and three that they promoted by subject "in part." The other cities, numbering 119, reported promotion by subject wholly. This means that different rates of progress are provided for as in the regular high school organization.

A second provision and one more far reaching is a reasonable latitude in the selection of individual subjects or courses. Douglass' study of this is the latest. His data is presented below.

Existing Junior High School Curricula, Showing the Subjects Offered and the Number of Schools Offering Each Subject

		7th Grade Required	7th Grade Elective	8th Grade Required	8th Grade Elective	9th Grade Required	9th Grade Elective
	No. of schools reporting	75	..	75	..	31	..
English	English	53	..	57	8	31	2
	Reading	17	7	13	..	..	..
	Grammar	19	..	15	3	2	..
	Spelling	31	..	25	..	1	3
	Penmanship	35	3	25	3	..	7
	English (Gr. Sp. Pen.)	14	..	12	1	..	..
Social Science	History	51	..	51	1	4	16
	Civics	8	..	17	4	3	1
	History and Civics	4	..	14	1	1	1
	Geography	51	3	17	1	1	1
	History and Geography	7	..	5	..	..	..
	History, Civics, and Geog.	1	..	1	..	..	..
	Civics and Geography	2	..	..	..	..	..
Math.	Mathematics	10	..	12	1	4	3
	Algebra	1	..	9	9	9	12
	Arithmetic	65	..	49	4	1	2
Science	General Science	11	4	13	10	4	12
	Agriculture	..	2	4	7	1	3
	Physiography	4	..	1	..	4	5
	Biology (Botany and Zoo.)	..	..	..	..	..	3
Language	Latin	1	15	1	27	..	26
	German	3	28	3	39	..	26
	Spanish	1	6	1	8	..	5
	French	..	9	..	9	..	5
	Swedish	..	1	..	1	..	1
	Italian	..	1	..	1	..	1
Hygenie	Physiology	13	1	15	3	2	3
	Hygiene	13	..	11	2	1	1
	Physical Training	26	3	26	4	10	3

		7th Grade Required	7th Grade Elective	8th Grade Required	8th Grade Elective	9th Grade Required	9th Grade Elective
	No. of schools reporting....	75	..	75	..	31	..
Art	Fine Arts	5	6	6	7	1	2
	Music	45	10	35	19	5	14
	Drawing	31	10	18	13	4	6
	Freehand Drawing	2	..	2	..	..	6
Industrial Arts	Industrial Arts	4	4	3	4	..	5
	Manual Training	30	23	25	32	1	19
	Survey of Vocations.....	..	..	..	..	..	1
	Industrial Science	..	2	..	..	..	..
	Industrial History	..	..	..	2	..	1
	Printing	..	2	..	2	..	2
	Metal Work	..	..	..	1	..	..
	Domestic Science and Art...	30	24	25	32	3	19
	Interior Decoration	..	1	..	1	..	1
	Dressmaking	..	..	..	..	..	1
	Design	..	..	..	1	..	..
	Mechanical Drawing	1	3	..	6	..	8
Commerce	Typewriting	..	8	..	10	..	6
	Com. or Ind. Arithmetic....	..	2	5	..	..	11
	Com. or Ind. Geography....	4	1	3	1	..	5
	Shorthand	..	2	..	4	..	5
	Business Practice	..	1	..	1	..	..
	Commercial English	..	..	1	..	..	..
	Bookkeeping	..	7	1	14	..	9
	Commercial Law	..	..	..	..	..	2

Another method of recognizing individual differences is that of requiring a maximum amount of work of the slower pupils in a required subject and a minimum amount of the brighter ones. One school recently organized covers in 7-B English the essential points formerly covered in 7-B and 7-A in that subject. About 25 per cent of the best students are then excused from 7-A English, which repeats essentially the work of 7-B. On the other hand, a child not able to do the work required in the regular class

periods is required to take one or two periods a week extra. This same school uses a similar device in mathematics.

Another device is that of slow and rapid groups. Pupils are sectioned on the basis of ability, the brighter ones being permitted to cover a given amount of work in less time than the slower ones require.

Still another method is the segregation of sexes in classes. This permits the work to be so organized that teachers may take full advantage of the different tastes and tendencies of boys and girls. A special type of mathematics, English, and elementary science may thus be developed.

8. SOCIAL ACTIVITIES

The social activities of the junior high school are little discussed in the literature available. This is doubtless due to a lack of development of such activities in the junior high schools. There are occasionally music clubs, such as bands, orchestras, or glee clubs under the supervision of teachers. Athletics consisting of regular gymnasium work, tennis, football, basketball, baseball, and track work under the direction of a physical director or coach, exist in some schools, though the general tendency is for ninth grade boys to play on senior high school teams. Rivalry in these sports is confined for the most part to inter-class games. A few schools report literary clubs that recognize debating, dramatic, and oratorical ability, and seek to develop that ability under the direction of a teacher. Sometimes provision is made for a party each year supervised by a teacher. Segregated clubs are also organized in some schools for pupils of this age.

9. ADJUSTING TO EXISTING SYSTEMS

The introduction of a junior high school organization into a school system well established is no easy task. Frequently a building that is at all adequate for the work is lacking. The question of administration is another equally perplexing one. There are three possibilities of solving the building problem: A highly specialized junior high school building erected primarily for junior high school work, an elementary school building, or a building

already used for high school work. Of the 150 systems reporting junior high schools to the Massachusetts High School Masters' Club but seventy-seven places had separate buildings; the others housed their pupils in existing high school buildings or in elementary school buildings. Bingaman found that among ninety-three places reporting junior high schools, thirty-six were housed with elementary schools, thirty-one with high schools, and twenty-six in separate buildings. In eighty-nine of the 150 places reporting to the Massachusetts High School Masters' Club there are separate principals for the junior high school; in the other places the junior high school principal has other administrative duties.

The selection of the teaching staff of a junior high school presents a very real difficulty. The methods of teaching junior high school subjects are different from those of the high school above or of the grades below. A wise compromise between these two methods should be sought. Probably the best equipped teacher for junior high school work is one who has a college education with elementary school teaching experience. But there are few of these in any one school system. The next best and the one recommended for schools in general is the selecting of experienced grade teachers with their more intimate knowledge of seventh and eight grade pupils. Principal James M. Blass, of the Washington Junior High School, Rochester, New York, is very emphatic in his report in the proceedings of the fifty-second convocation of the University of the State of New York on this point. This is also the best way to adjust this new organization to a school system in which the tenure of office of the teachers is fairly permanent. Meanwhile the normal schools and the colleges are putting forth every effort to give courses for teachers of junior high school subjects so that ultimately we may expect specific training for this work in our teaching corps.

V. THE CURRICULUM OF THE JUNIOR HIGH SCHOOL

In arranging a curriculum the superintendent or principal is face to face with the most difficult but yet the most important problem involved in the establishment of a junior high school. At present we find many different types of curricula offered and still a larger variety advocated. The course of study depends upon the aims not only of the junior high school but also upon those of the complete educational system. The broad purpose of public education is to promote social efficiency. Social efficiency includes physical, civic, moral, æsthetic, religious, cultured, and economic ends. The educator cannot afford to take a one sided view. He must not build his course around the civic or the physical or any of the other divisions else it will be too narrow and suited to prepare for but one side of the child's life.

I. GENERAL CHARACTERISTICS OF COURSES IN JUNIOR HIGH SCHOOLS

From a study of the different courses offered in the various junior high schools already established, we may enumerate certain common characteristics that seem to distinguish these courses from those offered in the regular school system. First, there is a decided tendency to have the community activities determine the real basis of instruction. In some instances, most things in the course of study center around agriculture or commerce or industrial life. "Centers of interest" are thus developed to motivate and vitalize the various subjects studied during these years, with the idea of reaching a larger number of children, of holding these children in school for a longer period, and for preparing them in a practical way for the activities of life. These courses correspond somewhat closely to the prevocational courses offered in certain systems. Second, most junior high schools attempt to meet the individual differences of pupils in a more effective manner than has prevailed in the regular system. This is done by allowing freer election between courses and subjects, by promoting by subjects rather than years, by departmentalized teaching, by the inaugura-

tion of a system of student counselors, and by devices to individualize the instruction in the class room. Sometimes these devices are to adjust the assignment to the capacities of the student, and sometimes to discover and direct these capacities in such a way that they may complete the regular course of study.

A third common characteristic of junior high schools is the larger freedom in discipline. There is a feeling that certain children do not need the rigid discipline that now prevails in the seventh, eighth, and ninth years. More attention is given to the development of student body activities, such as literary societies, debating clubs, athletic associations and teams. Again, in a number of junior high schools a course is especially designed for children that are anxious to gain a year's time by beginning their high school studies earlier. The junior high school course is a pre-high school course that shortens the years of attendance in the public school system from twelve to eleven or even ten years. Few junior high schools offer vocational courses of a specific nature. This is possible only in very large cities and is not desirable even in such cities for children under fourteen or fifteen years of age, as children of these ages do not have permanent career motives that can be relied upon in establishing a course.

2. NUMBER OF CURRICULA

In very large cities the school system may have enough children in grades seven, eight, and nine to warrant the maintenance of four or five curricula. But most communities cannot afford to maintain more than one or two courses. In general we may say that the two most common courses are (a) a two or three-year course leading toward occupational life, and (b) a course of the same length leading toward the high school. The junior high schools of Los Angeles maintained, in 1916, six courses or curricula. The per cent of the total enrollment in each of these courses was as follows:

Courses Offered	Per Cent of Total Enrollment in Course
a. Literary-Scientific	56.0 per cent
b. Commercial	16.1 per cent
c. General Elective	11.7 per cent
d. Home Economics	7.8 per cent
e. Engineering Preparatory	5.3 per cent
f. Mechanical Arts	3.1 per cent

This means that over half the children were in the regular literary scientific course, and that nearly twelve per cent (11.7) additional were in the general elective course. These two courses were very similar except for the free election in the second. In a town with 1,000 children attending junior high school there would be, on the basis of these figures, only thirty-one in the mechanical arts course, fifty-three in the engineering preparatory course, and seventy-eight in the home economics course. It is evident from these figures that small communities can scarcely afford to maintain more than two or three curricula and that the two most commonly demanded would probably be the general elective and the literary-scientific courses.

Douglass, in the Fifteenth Yearbook of the National Society for the Study of Education, gives several types of curricula commonly found in junior high schools. One type is made up of common branches, with no elections until the ninth year. In the ninth year, a student is given a choice similar to what the average high school freshman has. A second type introduces manual training, domestic science, and foreign language in the seventh and eighth grades. Another type provides several different curricula and frequently involves segregation by sexes. This type of organization is possible in large cities. The fourth type is of a prevocational nature. The most interesting example of this is the Ettinger plan used in New York City. Under this plan children are divided in the seventh and eighth grades between the regular academic and industrial work, certain children pursuing the first course and others pursuing the second. Children in the industrial group are divided into sections for woodwork, machine making, millinery, pasting novelty work, power machine operat-

ing, etc. The children are then rotated for nine weeks in each shop. It is the purpose of this plan to discover marked aptitudes and efficiencies, or in other words, to give vocational and educational guidance through rotating the industrial classes.

3. JUNIOR HIGH SCHOOLS OFFERING ONE CURRICULUM

One curriculum is offered in Sante Fe, New Mexico; Springfield, Illinois; Mt. Vernon, Indiana; San Francisco, California; Rochester, Minnesota; Grand Rapids, Michigan, and the University High School of the State University of Iowa.

The course offered in Sante Fe, New Mexico, is as follows:

Grade 7. Required: English, 5; mathematics, 5; history, 3; civil government, 2; geography, 3; physiology, 2; fine arts, 3; music, 2; household arts, 2; industrial arts, 2; Spanish, 2.

Grade 8. Required: English, 5; mathematics, 5; history, 3; civics, 2; general science, 3; fine arts, 3; music, 2; household arts, 5; industrial arts, 5; Spanish, 2.

Grade 9. Required: English, 5; algebra, 5. Elective: Latin, 5; Spanish 5; first year science, 5; industrial arts, 5; household arts, 5; freehand, 3; machanical drawing, 3; music, 2.

It will be noticed in the seventh and eighth grades of this course the student is required to attend classes twenty-nine periods a week, and that no electives are allowed. This is rather a heavy course although a decided improvement over the work usually offered in the seventh and eighth grades. It requires Spanish in the seventh and eighth grades two hours a week, which would probably not be practicable in northern and eastern cities. In the ninth grade of this course, English and algebra are required. Many educators doubt the advisability of requiring mathematics in the ninth year. History, science, and practical arts have greater social value.

In Springfield, Illinois, the work in grades seven and eight is practically the same as is found in seventh and eighth grades throughout the country, with the exception that the child is allowed to choose between German and industrial work. In the ninth grade, English, algebra, music, and drawing are required. Again the question arises, should algebra be required?

Grade 7. Required: English (reading, literature, grammar, spelling, penmanship), arithmetic, geography (one-half year), United States history (one-half year), physiology (one-half year), music, drawing, industrial work. Electives (choose one): German, industrial work.

Grade 8. Same as grade 7.

Grade 9. Required: English, algebra, music, drawing. Elective: Latin, German, ancient history, general science, commercial arithmetic, industrial work.

The course in the seventh and eighth grades in the Garfield Junior High School in Richmond, Indiana, is as follows:

Garfield Junior High School, Richmond, Indiana, Course of Study

7-B TERM	Hours per Week	Credits per Term
Required work:		
Subjects		
English	8	1.6
Arithmetic	5	1.0
Geography	5	1.0
Music	2	.4
Drawing	1	.2
Woodwork or sewing	2	.4
Physical training	2	.4
Elective, choose one:		
Latin	5	1.0
German	5	1.0
English composition	5	1.0
Industrial work	5	1.0

8-B TERM	Hours per Week	Credits per Term
Required work:		
Subjects		
English	8	1.6
Arithmetic	5	1.0
History	5	1.0
Music	2	.4
Drawing	2	.4
Woodwork or sewing	2	.4
Physical training	1	.2
Elective, choose one:		
Latin	5	1.0
German	5	1.0
English composition	5	1.0
Industrial work	5	1.0

7-A TERM		
Required work:		
English	8	1.6
Physiology	5	1.0
History	5	1.0
Music	2	.4
Drawing	2	.4
Woodwork or sewing	2	.4
Physical training	1	.2

8-A TERM		
Required work:		
English	8	1.6
Arithmetic	5	1.0
Civics	5	1.0
Music	2	.4
Drawing	2	.4
Woodwork or cooking	2	.4
Physical training	1	.2

Electives, choose one: Subjects	Hours per Week	Credits per Term
Latin	5	1.0
German	5	1.0
English composition	5	1.0
Industrial work	5	1.0

Electives, choose one: Subjects	Hours per Week	Credits per Term
Latin	5	1.0
German	5	1.0
English composition	5	1.0
Industrial work	5	1.0

Time schedule.—The hours are fifty minutes each. The time scheduled for the different subjects includes the time spent in preparation in school.

Credits.—Twenty-two credits are required for promotion to high school. A pupil must not be back two credits in any one subject.

English.—Under this head are included reading, grammar, composition, spelling, and penmanship. Five of the eight hours scheduled for the subject are given to recitation work, and, in addition to the three hours in school for preparation, some home work is usually necessary.

Latin and German.—Two high school credits are given for the work in these subjects in Garfield, and pupils who have also taken the German work in Hibberd, or its equivalent, receive three. No pupils are admitted to Latin and German classes unless their work has been strong in the preceding grade, and all their work must be kept up to a high standard or they are required to change.

Industrial work.—There is no attempt to teach trades, but merely to give pupils some experience that will enable them to choose an occupation more intelligently. The work is also found to give an added zest to school life for many boys and girls who show little interest in the academic studies.

In Rochester, Minnesota, the course of study in the junior high school is as follows:

Grade 7. Required: English, 5; arithmetic, 5; American history, 5. Elective: German, 5; chorus, 5; calisthenics, 4; domestic art, 5; shop, 5; arts and crafts, 5; domestic science, 5; military drill, 3.

Grade 8. Required: English, 5; geography, 5; penmanship and spelling, 5. Elective: Same as grade 7, with bookkeeping, 5; mechanical drawing, 5, and agriculture, 5, in addition.

Grade 9. Required: English, 5; community civics, 5; general science, 5; mathematics (elementary algebra), 5. Elective: Same as grade 8, with business law, 5; industrial history, 5; Latin, 5, and poultry and gardening, 5, in addition.

The question may be raised, why is science not required in the seventh grade? And again, why is mathematics required in the ninth grade? On the whole the committee believes that this course is an improvement over the one used in Sante Fe, New Mexico.

In Duluth, Minnesota, as in a number of other cities, one curriculum is required for grades seven and eight, and three or four curricula are offered beginning with grade nine. This corresponds closely with the usual organization. In Trenton, New Jersey, for example, one curriculum is required for grades seven and eight and three curricula (a) academic, (b) commercial, and (c) industrial, beginning with grade nine. Each day consists of six periods of sixty minutes each. The aim is more broadly educational than vocational or prevocational.

In Norwalk, Connecticut, three courses are offered beginning with the seventh grade: (a) academic, (b) commercial, and (c) manual arts. Beginning with the ninth year, the commercial curriculum is divided into (1) a clerical, and (2) a commercial; and the manual arts into (1) a general and (2) a shorter curriculum.

In the Wisconsin High School in Madison, one curriculum is offered in the seventh, eighth, and ninth grades.

Grade 7. Required: English, 5; mathematics, 5; geography and general science, 5; music, physical education. Electives: German, 5; French, 5; manual arts, 5; domestic science, 5; domestic art, 5; drawing, 3.

Grade 8. Required: English, 5; mathematics, 5; history and citizenship, 5; music, physical education. Electives: General science, 5; German, 5; Latin, 5; French, 5; manual arts, 5; domestic science, 5; domestic art, 5; drawing, 5.

Grade 9. Required. English, 5; music, physical education. Electives: Mathematics, 5; general geography, 5; agriculture, 5;

ancient history, 5; German, 5; Latin, 5; French, 5; manual arts, 5; domestic art, 5; drawing, 3.

The course of study in the University High School, State University of Iowa, in the seventh, eighth, and ninth grades is as follows:

Grade 7. First semester. Required: History, 5; science, 3; English, 5; mathematics, 4; art, 2; music, 1; manual training, 4; home economics, 4; physical training, 2. Second semester. Required: History, 5; science, 3; English, 5; mathematics, 4; art, 2; music, 1; manual training, 4; home economics, 4; physical training, 2.

Grade 8. First semester. Required: Same as first semester of grade 7. Second semester. Required: Same as second semester of grade 7.

Grade 9. First semester. Required: English, 5; history, 5; music, 1; physical training, 2. Electives: Science, 5; mathematics, 5; French, 5; Spanish, 5; German, 5; Latin, 5; manual training, 4; home economics, 4; art, 2. Second semester. Required: English, 5; history, 5; music, 1; physical training, 2. Electives: Science, 5; mathematics, 5; French, Spanish, 5; German, 5; Latin, 5; manual training, 4; home economics, 4; art, 2.

The committee believes that for Iowa conditions one curriculum with few electives is better than many curricula or one with wide elections. The period of general education does not end with the completion of the sixth grade at the early age of twelve. Children thirteen, fourteen, and fifteen years old still have many needs in common, and one curriculum designed to meet these needs is the most economic and effective means of realizing the desired end. The curriculum in the University High School is so designed as to offer the essentials in English, science, mathematics, history, æsthetic and practical arts. This course is for all because all need these things. Necessarily, many problems in the organization and arrangement of subject matter remain to be settled by the teacher when she confronts her class. But in general the common need is met by such a curriculum.

VI. QUALIFICATIONS OF TEACHERS

It is conceded by all who have given careful attention to the subject that the ablest teachers should be secured for the junior high school. When introducing a plan of school organization which throws so much emphasis upon the socializing of school life only teachers of high scholarship, wide experience, and proven ability should be employed. This period in the child's life is a very critical one and maturity in the teacher, poise, good scholarship, judgment, and above all reasonable sympathy with the problem of adolescent life may save many pupils.

We believe that the teacher in the new junior high school should be a graduate of at least a two-year normal course in addition to a four-year high school course. Additional collegiate training, especially along the line of the particular branch which the teacher is to teach, will be of great value.

We also believe that at least two years of successful experience in teaching is just as necessary a requirement as educational qualifications. We put stress on the matter of training in teaching because the child at this age is most difficult for the inexperienced teacher to reach. It will also be found that the best results in interest and development are secured when the teaching force is made up of about twenty-five to forty per cent men. The boy at this age should feel the man's presence and influence and many valuable lessons will be learned if the right type of man is brought into close contact with the students of the junior high school. This is sometimes the only close acquaintance which the junior high school girl forms with men before going to work in the business world.

VII. COST: BUILDING, EQUIPMENT, INSTRUCTION

In advancing the public interest of any community one of the important questions which seem to arise is, "What will the installation of the new idea or system cost?" Another is, whether or not the increased cost involved is in reality an economic saving of the time and energy of the parties concerned.

The American people are not only guilty of waste in the use of material products of the country, but grossly guilty of waste in human energy. Professor James contends that if all human energy could be directed towards the most economic production the efficiency of the human race would be doubled immediately. The public schools of Iowa, and in fact of the United States, have not in the past used the time and energy of the young people to the greatest advantage in the production of an efficient citizenship. Educators are appraising themselves of this fact, and throughout the length and breadth of our vast domains there is now a cry coming from the business world for a more efficient product from our public schools. The treadmill style and the repetition of the subject matter in our public schools must give way to an organization and courses of study which will make all of the energy expended by the child count directly for efficiency. The time which the school has been wasting must now be directed towards economizing and saving human energy.

I. BUILDINGS

It is not only necessary to have school buildings which are sanitary, well heated, lighted, and ventilated, but the floor space must be such as to allow the organization, the course of study, and the instruction to be carried on at a minimum expense of time and energy. Many of the new modern high school buildings are being constructed with two assembly rooms, one for the junior high school and the other for the senior high school, with the proper recitation rooms, laboratories, shops, and cafeteria convenient to the assembly rooms. The gymnasium, swimming pool, athletic field, playgrounds, and school gardens are being so located as to be readily available to the student body.

It does not necessarily follow that because there are two assembly rooms that the floor space must be extensively increased over against that which was necessary in the older type of building. In buildings not built especially for the junior-senior high school, the floor space which was formerly used by the seventh and eighth grades may be so changed as to make it the junior high school assembly room. The recitation rooms, laboratories, etc., of the senior high school may be used for the work of the junior high school. In a regularly planned junior high school the recitations are conducted in the recitation rooms or laboratories, thus leaving the assembly room for a study room. The best authorities advise that school buildings be specifically constructed for the organization of the junior high school. The junior-senior high school, when each department is small, should be placed in the same building.

It is the opinion of school boards and superintendents who have attempted to supervise the remodeling of an old school building for a junior high school that it is a difficult matter to secure the proper floor space for the various departments which is necessary in the administration of such a high school. No one floor plan has been agreed upon as a basis for a junior-senior high school. Charles Hughes Johnson, in the November, 1916, American Schoolmaster, says:

"The material plant has not been reduced to one type. Old buildings are being remodeled and new ones especially constructed for strictly junior high school purposes. These are being constructed so as to emphasize flexibility in administering of instruction, shop facilities for prevocational education of all varieties, physical education, general business fundamentals of both skill and information, concrete acquaintance with the world of fine arts and home arts, auditorium, and direct study facilities.

"Floor space is given to shops, kitchens, cafeteria, printing equipment, laboratories, swimming pools, assembly rooms, junior high school libraries, and museums. In time there undoubtedly will be the junior high school architect. In addition to the material plant, properly laid out athletic fields, school gardens, and general playgrounds are being maintained. In fact, around the

junior high school is centered a community center spirit. The plants, as a whole, are directed in detail towards the development of every individual in the community for an enlarged service as a citizen. The greater the amount which any community pays for developing the intellectual power of the human race the greater will be the tendency to lessen the amount to be paid at the bar of justice, or in charitable institutions."

2. EQUIPMENT

The cry of the age is economy. It is probable that one of the greatest wastes in the public utilities comes from the fact that so much material investment in the public schools is used only a few days in a month and only a few months in the year. The buildings stand idle for several months in the summer without the people deriving any direct benefit from the money invested. This is even more true of the equipment of the school. In many schools the physics, chemistry, manual training, domestic science, and agriculture equipment are used generally not more than one period per day. This all depends upon the number of sections in the classes concerned. The plan of the junior high school is such that all of this equipment can be put into use among a larger number of students and classes. The money invested in equipment should be the most productive by developing human energy and thus the equipment of any school should be available for the greatest possible number of students. In fact, it is more economical to keep the equipment in use than to have it rust or fall into disuse. The junior high school uses the same equipment, library, maps, and charts as used in the senior high school unless the junior high school is in a separate building.

3. INSTRUCTION

It is, in general, the opinion of superintendents, teachers, and school boards who have had experience with the junior high school that the building and equipment are not the greatest factors in solving the problem.

In the junior high school it becomes necessary to increase the teaching force so as to get the most efficient and economical use of

the student's time. Individual differences are constantly given full consideration. At the same time the junior high school allows each teacher to give instruction in the subject in which he or she has specialized. Professor Judd, of the University of Chicago, says: "The effect on teachers and school officers will be as wholesome as the effect on the students. It is quite impossible to work out these changes * * * completed in the organization of an intermediate school without showing the irrationality of all the harsh feelings and criticisms heretofore existing between the elementary and high school." Again, Professor Judd says: "If you want to influence an adolescent in a larger way, you must begin at twelve, not fourteen."

The teachers will be able to do away with needless duplication and repetition of subject matter. The discipline of the school is made easier since the physical activity of the pupil is taken into consideration. Commissioner Wood says: "Data submitted seem to show that the percentage of retardation in the intermediate school (junior high school) classes is decreasing."

The nature of the organization of the junior high school will make a demand for more men to prepare themselves as supervisors for such schools. The curriculum will be focused more towards individual differences, and differentiation of subject matter, and supervised or directed study. The expert and special teacher will have more prominent places in the teaching corps. Every child will be allowed to move from subject to subject just as the ability concerned will permit.

Better salaries will be paid teachers, a premium will be placed upon trained teachers, years of experience will be a consideration, and those who have sympathy and understanding of the youth will be selected. The junior high school will become so inviting that the boys and girls who are preparing themselves for a place in any of the present industries will find that a course in this school is offered to make them more efficient in their chosen profession. It is to be a school for democracy and not for aristocracy alone.

From all questionnaries which have been sent out from time to time it has been discovered that school boards and superintendents are agreed that the junior high school demands more floor space,

better equipment, and more efficient teachers. It then follows that the cost of maintaining such a school is somewhat greater than that of maintaining the regular eight-four plan. Thomas H. Briggs submits the following conclusions:

(a). In thirty cities investigated, seventeen said junior high schools cost more per capita (amount spent for maintenance and operation divided by average number of pupils attending) than the grades; seven said cost was the same, and six qualified their answers.

(b). Dr. Jessup, in the Los Angeles survey, found cost to be about fifty per cent more for the junior high school than for grades one to six.

(c). Cost of instruction no doubt greater.

(d). Cost of building and equipment varies with conditions under which the junior high school is organized.

Superintendent J. O. Engleman, in University of Illinois Education Bulletin, No. 17, says:

"Our junior high school, as organized at present, is costing us considerably more than it would cost to teach the same students in the ordinary elementary school. Indeed, the year ending June 30, 1915, the per capita cost in our grades below the junior high was approximately $31.00; in the junior high it was $51.00, and in the high school, $71.00. We believe that the cost of the junior high as at present arranged is greater than it ought to be in spite of the advantages resulting from that type of organization. An effort will be made to conserve its present advantages and even materially increase and multiply them, and yet reduce the per capita cost. I think this will be possible."

Thomas H. Briggs reports the following concerning the preparation of teachers for the junior high school:

"But now teachers are in several ways being especially prepared for the junior high school. At least one of the largest colleges of education is offering courses leading to that end and several cities independently are developing their own teachers. Rochester, New York, for instance, in anticipation of four junior high schools, has offered weekly work in the several subjects that will be introduced; for those successfully taking the course a

number of teachers for the new school will be selected. From 1,528 teachers reported in an incomplete tabulation, as giving instruction in the junior high school (1,189 full time, 430 part time), 581 had previous experience in both elementary and secondary schools, 209 in secondary schools alone, and 642 in elementary schools alone. This means that only six per cent of the teachers in the junior high school were without experience when they were selected. Nearly two-thirds of this small number came directly from the colleges, and the remainder from normal schools. Although data concerning the sex of the teachers were not required, it is obvious from the report that in the first years of the junior high school there is a considerably larger proportion of men than is found in the seventh and eighth grades of the grammar school."

It is impossible to obtain from superintendents, school boards, or school surveys any definite figures as to exact cost of buildings, equipment, and instruction for the maintenance of the junior-senior high school over against the eight-four plan. However they are all agreed that the cost will be somewhat greater, but they are also agreed that the efficiency of the school is increased proportionally more than the cost.

VIII. THE JUNIOR HIGH SCHOOL IN IOWA

In order to obtain information as to the status of the junior high school in Iowa the following questions were submitted to seventy-five superintendents of school systems, which there was some reason to believe include junior high schools:

1. Have you a junior high school?
2. If so, what grades are included?
3. Is the work offered in seventh and eighth grades any different from the work ordinarily offered in these grades? If so, how?

No attempt was made to define the term, but each superintendent was left free to compare his own organization with his concept of a junior high school. To these seventy-five letters forty-four replies were received. The forty-four cities replying, with their answers to the first question, were as follows:

Albia	?	Hampton	No
Algona	No	Independence	?
Audubon	No	Iowa City	?
Avoca	?	Keokuk	No
Boone	No	Lake City	No
Carroll	Will have	Marion	Yes
Cedar Falls	No	Marshalltown	No
Centerville	No	Missouri Valley	No
Charles City	No	Muscatine	No
Clarion	Yes	Newton	Yes
Clinton	Yes	Oelwein	No
Corning	?	Osage	No
Cresco	No	Oskaloosa	No
Creston	No	Ottumwa	No
Davenport	Will have	Perry	No
Denison	No	Reinbeck	No
Dubuque	No	Sigourney	No
Eldon	No	Stuart	No
Estherville	No	Washington	No
Ft. Dodge	No	Waterloo (East)	Yes
Ft. Madison	No	West Liberty	No
Grinnell	No	Winterset	No

To this first question, "Have you a junior high school?" thirty-two answered "no," five answered "yes," and two announce that plans are being made for the organization of junior high schools in the near future. Five were not willing to commit themselves definitely to "yes" or "no," but from answers to question three it appears that they have the customary seventh and eighth grade departmental work.

Only those five schools reporting junior high schools need be considered with respect to the question of grades included in such organization. Clarion reports the seventh and eighth with the ninth to be included later probably. Clinton includes the eighth and ninth. Marion reports the seventh and eighth. Newton reports the seventh and eighth in the junior high and will include the ninth after this year. East Waterloo includes the seventh and eighth and will add the ninth next year.

The difference between work of grades seven and eight in the junior high school and the work of the same grades under the departmental plan is not clear in some cases. Of the five reporting junior high schools, three mention emphasis placed on manual training and domestic science, two introduce general science, one begins Latin, one offers Spanish, one offers civics, and one offers agriculture. Two mention a complete reorganization of seventh and eighth grade English, and two mention departmental work as features of their organization.

Of the thirty-two who report no junior high school, fourteen naturally confine themselves to answering "no" to the first question. Seventeen, though, give some information as to the organization of their seventh and eighth grades, and they all agree in reporting departmental work. Some report quite as wide a departure from what has been considered regular work for these grades as is made by some of the junior high schools.

Only two cities—Newton and Davenport—report any plans under way for the special housing of the junior high. Newton has issued bonds and let the contract for a new junior high school building. However, the building will not be used exclusively for the junior high school but will offer some of its facilities to the

each difficulty was satisfactorily overcome. He discusses many beneficial results of the system in detail.

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Hughes, J. F., "The Essential Features of the Chanute Junior-Senior High School Plan and its Tangible Results." Educational Administration and Supervision, Vol. I:167, 1915. A very "matter-of-fact" statement of the six-three-three plan in Chanute, telling exactly what subjects are taught and the benefits derived from the new plan.

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Pittenger, B. F., "The Use of the Term 'Secondary' in Education." School Review, Vol. XXIV: February, 1916. An authoritative discussion of the changes in usage of the term "secondary" in American education.

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Weet, Herbert S., Superintendent Rochester Public Schools. "Rochester's Junior High Schools: A First Step in Establishing the Six-Three-Three Organization." Educational Administration and Supervision, Vol. II:433, 1916. How Rochester met its junior high school problems, its final organization, the course of study adopted relative to requirements and electives is fully discussed. Three reasons in defense of the Rochester junior high school plan are given.

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